IN THE UNITED STATES PATENT & TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS & INTERFERENCES

Appellant

Robert E. Sterling et al.

Serial No.

09/978,305

Filed

October 17, 2001

For

Thermoset Polymers With Polyfluoroalkysiloxane

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TC 1700

Modified Surfaces

Art Unit

1712

Examiner

M. Moore

BRIEF ON APPEAL

Mail Stop Appeal Brief-Patents

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

The following Brief on Appeal is submitted in support of the appeal of the Office Action mailed April 16, 2003, wherein the Examiner finally rejected claims 1-13. The appeal fee of \$160.00 is submitted herewith.

To the extent necessary, appellant petitions for an extension of time under 37 CFR §1.136. Please charge any additional fees due (or credit any overpayment thereof) to Deposit Account No. 50-1165 (Docket No. T2281-907508).

Respectfully submitted,

MILES & STOCKBRIDGE

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Filed: July 14, 2003

1751 Pinnacle Drive McLean, VA 22102

Tel: (703) 610-8672 Fax: (703) 610-8686

dclarke@milesstockbridge.com

Dennis P. Clarke Registration No. 22,549



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REAL PARTY IN INTEREST

The real party in interest herein is RES Development Corporation, to which the above-captioned application is assigned by virtue of an Assignment from the inventors executed January 2, 2002, which was recorded January 14, 2002, on Reel 012470 at Frame 0634.

RELATED APPEALS AND INTERFERENCES

The invention described in the claims on appeal herein is not related to the inventions described in the claims of any other patent application known to appellants.

STATUS OF CLAIMS

The above-captioned application was filed with original claims 1-13. This is an appeal from the final rejection of claims 1-13, all of the claims remaining in the application.

STATUS OF AMENDMENTS

An amendment pursuant to 37 CFR 1.116 was filed on July 9, 2003 to correct obvious informalities in the claims.

SUMMARY OF THE INVENTION

The invention provides novel thermoset polymer compositions as well as a method for their preparation. The polymers have unique properties, previously unattainable in thermoset polymers, and find utility in a wide variety of applications.

One embodiment of the invention relates to a composition of matter comprising (1) a cross-linkable thermosetting resin providing composition intimately admixed with (2) from

about 0.01 to about 5%, by weight, based on the weight of the mixture, of an additive comprising polyfluoroalkylsiloxane (PFAS) of the formula set forth in the claims:

A second embodiment of the invention relates to a method of forming a composition of matter comprising a cross-linked thermoset resin and from about 0.01% to about 5%, weight, of an additive comprising a polyfluoroalkylsiloxane, the method comprising intimately admixing with a cross-linkable thermosetting resin providing composition (I) a polyfluoroalkylsiloxane (PFAS) having the formula set forth in the claims, followed by subjecting the mixture to conditions which produce a cross-linked thermoset solid resin wherein the concentration of the additive through a cross-section of the solid composition is lower in the interior thereof and higher at the surfaces thereof.

The term, "gradient", is not intended to suggest that the concentration varies uniformly from the interior or center of the composition to the surface. Although this may be the case with respect to some combinations of polymer and additive, typically a much higher concentration of the additive is found at the surfaces of the composition with a much smaller amount in the interior or bulk of the polymer.

This higher concentration of additive at the surface of the polymer enables the provision of a polymer composition having heretofore unattainable properties. Thus, using very low concentrations of additive below 1 .0%, relatively high concentrations are attainable at the surface.

The high concentrations of additive at the surfaces provide compositions having the advantages of PFAS-like surface properties, i.e., greater hydrophobicity, lower surface energy, non-adherent surface characteristics, more chemically inert, lower friction, smoother, etc. In addition, the presence of the additive enhances molding operations since it reduces "sticking" of the composition to the mold surfaces and enhances mold release. Also, the additive will, because of the lubricant properties thereof, permit higher speed processing of

extruded objects, i.e., films, fibers and other objects formed therefrom and with smoother surfaces, with the added benefits of shorter injection molding cycles and higher extrusion rates.

For biological or biomedical applications of the polymer compositions, the PFAS surfaces are especially advantageous since they exhibit superior biocompatibility in contact with tissue surfaces, cells, physiological fluids and blood as compared with most thermoset polymers.

For the most part, the basic bulk or interior mechanical, physical and chemical properties of the thermoset polymers are retained or even enhanced for the compositions of the present invention, but the polymers acquire the PFAS surface properties of the additive due to the above-noted gradient concentration of the additive through a cross-section of the composition from a lower value in the bulk to a higher value at the surface. This makes the compositions of the invention also advantageous for molds such as those used for optical and electronic parts and for electro-optical or electromechanical devices which require low surface energy and low friction surfaces.

The lower concentrations of additive in the interior portion of the thermoset polymer can also advantageously modify the bulk mechanical, physical and chemical properties of the polymer, however.

A unique advantage associated with the compositions of the invention is that if cut into plural sections, the additive in the interior will migrate to the new surfaces formed by the cutting operation.

ISSUES ON APPEAL

Claims 1-13 stand finally rejected under 35 USC §112, second paragraph, as indefinite in the term, "silanol terminated derivative".

An issue presented for appeal is whether the term, "silanol terminated derivative", is indefinite to the point that the claims do not "particularly point out or distinctly claim the subject matter which applicant regards as the invention" as required by 35 USC §112. [In addition, the Examiner has additionally objected to claims 4 and 11 as containing a redundant phrase that was entered by a previously filed amendment. Appellants have filed an Amendment that eliminates the redundancy referred to by the Examiner.]

Claims 11-13 stand finally rejected under 35 USC §102(b) as unpatentable over the reference to Evans et al ("Evans").

A second issue presented for appeal, therefore, is whether the reference to Evans completely anticipates the subject matter of claims 11-13.

Claims 1-4 and 6-13 stand finally rejected under 35 USC §103 as unpatentable over the reference to Kobayashi.

A third issue presented for appeal, therefore, is whether the Examiner has made out a prima facie case of obviousness of the claimed invention based on the reference to Kobayashi.

The Examiner states that claim 5 would be allowable if rewritten to overcome the rejection based on 35 USC §112 and to include all of the limitations of the base claim and any intervening claims.

GROUPING OF CLAIMS

The appealed claims do not stand or fall together and appropriate arguments to that effect will be set forth below.

ARGUMENTS

The claims are not indefinite under 35 USC §112.

"---Specifically it is unclear what is embraced by the term 'silanol terminated derivative'---The Examiner notes that the specification provides no guidance as to what is intended by this term---"

It is respectfully submitted that the term in question is so well known in the prior art that any further explanation or definition thereof in the specification is unnecessary.

To date, 220 US patents have issued that employ this term in the claims to define certain polymers. A list setting forth the numbers and titles of the se patent is attached hereto as Attachment –A-. Also attached as attachment –B- for the Board's convenience, is a copy of one of these patents, no. 6,586,100. An examination of the claims and specification of this patent will reveal that the term is used therein exactly as it is used herein, i.e., with no further definition or explanation to define a particular type of polysiloxane.

Since the term has acquired a definite meaning in the prior art to those skilled in the art, it is respectfully submitted that its use in the claims on appeal does not violate the requirements of 35 USC §112, second paragraph.

The redundancy referred to by the Examiner in the second paragraph of section 1 of page 2 of the final Office action was corrected by the amendment filed July 9, 2003.

Claims 11-13 are not anticipated under 35 USC §102(b) by Evans.

The Examiner states in paragraph 4 of the final Office action:

"---Applicants state that they have amended claim 11 such that the terpolymers in Evans are excluded from the claimed additive. The Examiner does not see how this is true since the additive in claim 11 can be a copolymer of the polyfluoroalkylsiloxane. This embraces the terpolymer of Evans---"

The reference to Evans is limited to a disclosure of "terpolymers" of a fluorosilicone, a methylsiloxane and a phenylsiloxane. See the Abstract and col. 4, lines 14-27. The additive of Evans requires the presence of all three monomeric units in the terpolymer.

The additive of the present invention, on the other hand, by the Examiner's own admission, is a <u>copolymer</u> rather than a <u>terpolymer</u>. The claims on appeal cannot be

Evans. In this regard, the Board's attention is directed to the definitions of "copolymer" and "terpolymer" in Webster's Collegiate Dictionary, 10th ed., 1994, attached hereto as Attachment –C-. Therein, copolymer is defined as the product of "the polymerization of two substances (as different monomers) together" and terpolymer is defined as "a polymer that results from copolymerization of three discrete monomers". Obviously, therefore, since the respective terms define separate entities, one cannot be said to include the other. Indeed, what would be the purpose of having two different terms to define the same thing?

Evans describes certain "terpolymers" comprising polymerized fluorosilicone, methyl siloxane and phenyl siloxane monomers whereas the claims on appeal define "copolymers" that comprise only two monomers, i.e., a fluorosilicone monomer and an alkyl, aryl, or alkyl-aryl-siloxane monomer. The latter can only be characterized as containing two and not three monomers.

Inasmuch as Evans does not disclose the copolymers of the present claims, the reference cannot be said to anticipate the claims within the meaning of 35 USC §102(b).

Accordingly, a reversal of this ground of rejection is respectfully requested.

Claims 1-4 and 6-13 are patentable over Kobayashi within the meaning of 35 USC §103

In the first Official Letter dated November 4, 2002, the Examiner stated:

"---Kobayashi teaches fluorosilicone polymers that meet the additive in claim I---The bottom of column 5 discloses that these fluorosilicones have a low surface tension and are useful as an additive for modifying the physical properties of synthetic rubbers and resins. Since the fluorosilicones are described as having low surface tension, the skilled artisan would immediately envision adding the fluorosilicones to a synthetic rubber or resin having a higher surface tension. In addition, the skilled artisan would immediately envision thermosetting resins as an operable synthetic rubber or resin to which the fluorosilicone can be added. From this the skilled artisan would have been motivated to add the fluorosilicones taught by Kobayashi to a thermosetting resin in an effort to decrease the surface tension thereof, a known benefit and property associated with the addition of fl'uorosilicones to

synthetic rubbers and resins, as disclosed by Kobayashi. With regards to the claimed amount---it would have been within routine experimentation and/or optimization for the skilled artisan to determine the operable amount of the fluorosilicone additive---".

In their response dated February 4, 2003, appellants countered that the crux of their invention resided in the addition of no more than 5% of additive to the thermosetting resin such that there is a gradient of concentration throughout a cross-section of the resin and that there was nothing in the Kobayashi reference that would suggest to the skilled artisan the necessary "known benefit and property" and/or "general conditions of the claim" stated by the Examiner to be essential to any rejection based on 35 USC §103.

The Examiner responded by stating in paragraph 5 of the final Office action:

"---Applicants note that they require .01 to 5% by weight of the additive and note that Kobayashi do not teach this value. They argue that there is nothing in the reference that teaches the skilled artisan the necessary "known benefit and property". The Examiner disagrees. Column 5 teaches the known benefit and property of patentees' additives as low surface tension, excellent oil resistance and excellent heat resistance. Clearly the skilled artisan would be able to determine the operable conditions, specifically amounts, required to obtain these properties when added to a synthetic rubber or resin, as suggested by Kobayashi. Since this would have been within routine experimentation, the Examiner maintains this rejection---" (emphasis added).

The patentability of the claims on appeal rests on a determination of whether Kobayashi discloses or suggests the inclusion of the fluorosilicone polymers disclosed by the reference in thermoset resins in amounts between 1% and 5% such that the concentration of the fluorosilicone in the thermoset resin is a gradient through a cross-section of the resin from a low value in the interior to a high value at the surface.

Appellants vigorously assert that the reference does not contain such a teaching. The only portion of the Kobayashi reference relating to uses of the disclosed fluorosilicones is at col. 5, lines 49-55:

"---The fluorosilicone polymer in accordance with the present invention as described hereinbefore has a low surface tension, excellent oil resistance,

excellent heat resistance, and so forth. Accordingly, it is useful as a coating where such properties are critical. It is also useful as an additive for modifying the physical properties of synthetic rubbers and synthetic resins---".

There is nothing in this passage that suggests incorporation of the fluorosilicone additive in a thermoset resin at a gradient concentration through a cross-section thereof. It is specifically disclosed in the present application that the crux of the invention resides in being able to provide this gradient of concentration such that the surfaces of the modified resin have one set of properties, i.e., "greater hydrophobicity, lower surface energy, non-adherent surface characteristics, more chemically inert, lower friction, smoother, etc." (page 7, first full paragraph) and the interior of the modified resin "retains the basic bulk mechanical, physical and chemical properties of the thermoset" (page 8, first full paragraph).

Obviously, there is nothing in the above-quoted portion of the Kobayashi reference that would enable one skilled in the art to arrive at the claimed gradient concentration that forms the crux of the invention. Indeed, a fair reading and interpretation of the reference would convey to the skilled artisan that the method described therein would lead to a modified resin wherein the concentration of the additive is uniform throughout a cross-section of the resin.

Since the "known benefit and property", i.e., the gradient concentration, stated by the Examiner to be a necessary element of an obviousness rejection based on 35 USC §103, is not disclosed or suggested by Kobayashi, the basis for the stated ground of rejection does not exist.

It is of course well settled in the law that a reference must enable the practice of a claimed invention before it can be said to disclose or suggest the invention. *In re Legrice*, 133 USPQ 365; *Phillips v. Ladd*, 138 USPQ 421; *DuPont v. Ladd*, 140 USPQ 297; *In re Brown*, 141 USPQ 245; *In re Foster*, 145 USPQ 166; *In re Dow*, 5 USPQ2d 1529. Since Kobayashi

does not enable the practice of the claimed invention it cannot be said to render the claimed invention obvious within the meaning of 35 USC §103.

A legal conclusion of patent invalidity for obviousness under 35 USC §103 must be supported by findings on the four factual inquiries set forth in *Graham v. John Deere Co.*, [383 U.S. 1, 148 USPQ 459 (1966)]. The legal conclusion of invalidity for obviousness depends on the four factual inquiries identified by Graham v. John Deere Co. as concerning (1) the scope and content of the prior art; (2) the level of ordinary skill in the art; (3) the differences between the claimed invention and the prior art; and (4) secondary considerations of nonobviousness.

In all cases the examiner must conduct a graham analysis. The necessity of graham is especially important to lessen the danger of one "fall(ing) victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher". *In re Dembiczak*, 175 f.3d 994, 50 uspq2d 1614 (fed. Cir. 1999).

It is further well settled that the prior art itself must suggest the problem sought to be solved by the claimed invention before it can be said to suggest or disclose its solution. *In re Shaffer*, 108 USPQ 326; *In re Aufhauser*, 158 USPQ 351; *US v. Adams* 148 USPQ 479; *In re Nomiya*, 184 USPQ 607. In the present case, Kobayashi does not even hint at, much less disclose or suggest the problem sought to be solved by appellants, namely, the establishment of a gradient of concentration of the additive through a cross-section of the resin so as to provide different properties at the surface of the modified resin than those existing in the interior thereof.

Any analysis of obviousness must also necessarily begin in the text of section 103, with the phrase "at the time the invention was made." For it is this phrase that guards against entry into the "tempting but forbidden zone of hindsight," [see *Loctite Corp. v, Ultraseal Ltd.*, 781 F.2d 861,873; 228 USPQ 90,98 (Fed. Cir. 1985), overruled on other grounds by

Nobel-pharma AB v. Implant Innovations, Inc., 141 F. 3d1059, 46USPQ2d 1097 (Fed. Cir, 1998)], when analyzing the patentability of claims pursuant to that section. Measuring a claimed invention against the standard established by section 103 requires the often difficult but critical step of casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field. See, e.g., W.L Gore & Assoc., Inc. v. Garlock, Inc., 721 F.2d 1540, 1553, 220 UPSQ 303, 313 (Fed. Cir. 1983).

The present state of the patent law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation in the prior art reference to arrive at the claimed invention. See, e.g., *C.R. Bard, Inc. v. M3 Sys., Inc.*,157 F. 3d 1340, 1352, 48 USPQ2d 1225, 1232 (Fed. Cir. 1998,) (describing "teaching or suggestion or motivation as an "essential evidentiary component of an obviousness holding"); *In re Rouffet*, 149 F.3d 1350, 1359; 47 USPQ2d 1453, 1459 (Fed. Cir. 1998) ("the Board must identify specifically—the reasons one of ordinary skill in the art would have been motivated to select the reference); *In re Fritch* 972 F.2d 1260, 1265; 23 USPQ2d 1780, 1783 (Fed Cir. 1992) (examiner can satisfy burden of obviousness in light of combination "only by showing some objective teaching"); *In re Fine*, 837 F.2d 1071, 1075; 5 USPQ2d 1596, 1600 (Fed Cir. 1988) (evidence of teaching or suggestion "essential" to avoid hindsight); *Ashland Oil, Inc. v. Delta Resins*, 776 F.2d 281, 297, 227 USPQ 657, 667 (Fed Cir. 1985) (district court's conclusion of obviousness was error when it "did not elucidate any factual teachings, suggestions or incentives from this prior art.").

The invention must be viewed not with the blueprint drawn by the inventor, but in the state of the art that existed at the time. In this case, the Examiner has obviously fallen into the hindsight trap. It has been noted by the authorities that evidence of a suggestion, teaching, or

motivation may flow from the prior art reference itself, the knowledge of one of ordinary skill in the art, or, in some cases, from the nature of the problem to be solved, see *Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc.*, 75 I F.3d 1568, 1573; 37 USPQ2d 1626, 1630 (Fed. Cir. 1996), *Para-Ordinance Mfg. v. SGS Imports Intern., Inc.*, 73 F.3d 1085, 1088; 37 USPQ2d 1237, 1240 (Fed. Cir. 1995), although "the suggestion more often comes from the teachings of the pertinent references," *Rouffet*, 149 F.3d at 1355, 47 USPQ2d at 1456. The range of sources available, however, does not diminish the requirement for actual evidence. That is, the showing must be clear and particular. See, e.g., *C. R. Bard*, 157 F.3d at 1352; 48 USPQ2d at 1232. Broad conclusory statements regarding the teachings of references, standing alone, are not "evidence." *E.g., McElmurry V. Arkansas Power & Light Co.*, 995 F.2d 1576, 1578; 27 USPQ2d 1129, 1131 (Fed. Cir. 1993) ("Mere denials and conclusory statements, however, are not sufficient to establish a genuine issue of material fact."); *In re Sichert*, '566 F.2d 1154, 1164, 196 USPQ 209, 217 (CCPA 1977)

It is clear that the authorities are unanimous in holding that it is impermissible to use the claimed invention as an instruction manual or "template" to piece together isolated disclosures and teachings of the prior art so that the claimed invention may be rendered obvious. A rejection based on § 103 must rest on a factual basis, with the facts being interpreted without hindsight reconstruction of the invention from the prior art. In making this evaluation, the examiner has the initial duty of supplying the factual basis for the rejection he advances. He may not, because he doubts that the invention is patentable, resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in the factual basis. See *In re Warner*, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967), cert. Denied, 389 U.S. 1057 (1968). Since there is no factual basis in the prior art relied on which supports the Examiner's position it is apparent that the examiner's conclusion of obviousness is based on hindsight reconstruction of the claimed invention from isolated

disparate teachings in prior art which is not concerned with the problem sought to be solved by the claimed invention.

Accordingly, this ground of rejection is not sustainable and must be reversed.

Separate patentability of the claims

Claim 2 is separately patentable from its parent claim 1 in that it is drawn to an additive wherein the alkyl group connecting the CF₃ group to the siloxane is propyl. The only connecting group shown by Kobayashi is an ethyl group and the Examiner has presented no evidence that the two are in any way equivalent.

Claim 7 is separately patentable from its parent claim 4 in that it is drawn to an additive wherein the alkyl group connecting the CF₃ group to the siloxane is propyl. The only connecting group shown by Kobayashi is an ethyl group and the Examiner has presented no evidence that the two are in any way equivalent.

Claim 10 is separately patentable from its parent claim 8 in that it is drawn to an additive wherein the alkyl group connecting the CF₃ group to the siloxane is propyl. The only connecting group shown by Kobayashi is an ethyl group and the Examiner has presented no evidence that the two are in any way equivalent.

Claim 13 is separately patentable from its parent claim 11 in that it is drawn to an additive wherein the alkyl group connecting the CF₃ group to the siloxane is propyl. The only connecting group shown by Kobayashi is an ethyl group and the Examiner has presented no evidence that the two are in any way equivalent.

CONCLUSION

It is respectfully requested that the final rejection of record be reversed and the application remanded to the Examiner for immediate allowance.

Respectfully submitted,

MILES & STOCKBRIDGE

Dennis P. Clarke

Registration No. 22,549

DPC/maa

Dennis P. Clarke Miles & Stockbridge 1751 Pinnacle Drive McLean, VA 22102 Tel: (703) 610-8672

Fax: (703) 610-8686

dclarke@milesstockbridge.com

APPENDIX

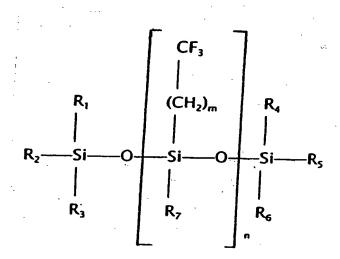
Claims on Appeal

1. A mixture comprising (1) a cross-linkable thermosetting resin providing composition and intimately admixed therewith, (2) from about 0.01 to 5%, by weight, based on the weight of the mixture of an additive comprising a polyfluoroalkylsiloxane, said additive having a lower surface energy than that of the thermoset resin formed by cross-linking said composition; said additive being a polyfluoroalkylsiloxane having the formula:

wherein R_1 , R_2 , R_3 , R_4 , R_5 , R_6 and R_7 may be the same or different and may be alkyl, cycloalkyl or aryl; R_7 may also be -(CH₂)-mCF₃; m is an integer from 0 to 20, and n is an integer from 1 to 5,000;

a copolymer of said polyfluoroalkylsiloxane with an alkyl, aryl or alkyl-aryl-siloxane, or a silanol terminated derivative of said polyfluoro-alkylsiloxane.

- 2. A mixture according to claim 1 wherein said additive is a polytrifluoropropylmethylsiloxane or a copolymer of said polytrifluoropropyl methylsiloxane.
- 3. A mixture according to claim 1 wherein each of said alkyl groups are methyl, ethyl, propyl, butyl, octyl or dodecyl.
- 4. A method of forming a composition of matter comprising a cross-linked thermoset resin and from about 0.01 to 5%, by weight of an additive comprising a polyfluoroalkylsiloxane, said additive having a lower surface energy than that of said resin; said method comprising intimately admixing with a cross-linkable thermosetting resin providing composition (I) a polyfluoroalkylsiloxane having the formula:

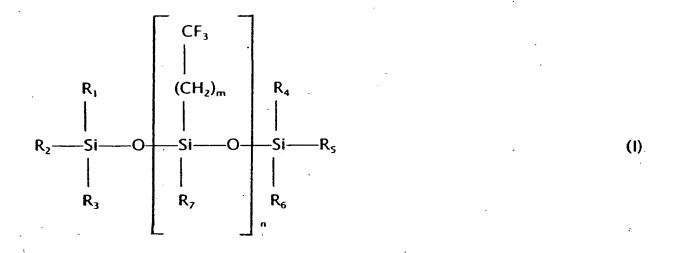


wherein R_1 , R_2 , R_3 , R_4 , R_5 , R_6 and R_7 may be the same or different and may be alkyl, cycloalkyl or aryl; R_7 may also be -(CH₂)m-CF₃; m is an integer from 0 to 20, and n is an integer from 1 to 5,000;

a silanol terminated derivative of said polyfluoroalkylsiloxane or a copolymer of said polyfluoroalkylsiloxane or a copolymer of said poly-fluoroalkylsiloxane with an alkyl, aryl or alkyl-aryl-siloxane;

followed by subjecting said mixture to conditions which produce a cross-linked, thermoset solid resin wherein the concentration of said additive thorough a cross-section of said composition is lower in the interior thereof and higher at the surfaces thereof.

- 5. A method according to claim 4 including a preliminary step of forming a pre-mix comprising a fractional portion of said cross-linkable thermosetting resin composition (l) in particulate form substantially uniformly wetted with said polyfluoroalkylsiloxane and mixing said wetted first fraction with the remainder of said cross-linkable thermosetting resin composition (l).
- 6. A method according to claim 4 wherein each of said alkyl groups are methyl, ethyl, propyl, butyl, octyl or dodecyl.
- 7. A method according to claim 4 wherein said polyfluoroalkylsiloxane is a polytrifluoropropylmethylsiloxane or a copolymer of said polytrifluoropropylmethylsiloxane.
 - 8. The composition of matter produced by the method of claim 4.
- 9. (Amended) A composition according to claim 8 wherein each of said alkyl groups are methyl, ethyl, propyl, butyl, octyl or dodecyl.
- 10. A composition according to claim 8 wherein said polyfluoroalkylsiloxane is a polytrifluoropropylmethylsiloxane or a copolymer of said polytrifluoropropylmethylsiloxane.
- 11. (Twice Amended) A composition of matter comprising (1) a cross-linked thermoset resin and (2) from about 0.01 to 5%, by weight, based on total weight of the composition of a polyfluoroalkylsiloxane having the formula:



wherein R_1 , R_2 , R_3 , R_4 , R_5 , R_6 and R_7 may be the same or different and may be alkyl, cycloalkyl or aryl; R_7 may also be -(CH₂)-mCF₃, m is an integer from 0 to 20, and n is an integer from 1 to 5,000;

a silanol terminated derivative of said polyfluoroalkylsiloxane or a copolymer of said polyfluoroalkylsiloxane or a copolymer of said polyfluoro-alkylsiloxane with an alkyl, aryl or alkyl-aryl-siloxane;

wherein the concentration of said polyfluoroalkylsiloxane through a cross-section of said composition is lower in the interior thereof and higher at the surfaces thereof.

- 12. (Amended) A composition according to claim 11 wherein each of said alkyl groups are methyl, ethyl, propyl, butyl, octyl or dodecyl.
- 13. A composition according to claim11 wherein said polyfluoroalkylsiloxane is a polytrifluoropropylmethylsiloxane or a copolymer of said polytrifluoropropylmethylsiloxane.

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- NO.
- Title
- 1 6,586,100 I Fluorocarbon-silicone interpenetrating network useful as fuser member coating
- 2 6,559,201 T Antifouling coating composition
- 3 6,555,229 **T** Fluorocarbon-silicone random copolymer for use in toner release layer
- 4 6,545,086 T Silicone pressure sensitive adhesive compositions
- 5 6,479,610 T Polyfunctional fluorosilicone composition, method for making, and use
- 6 6,476,095 T Antifouling coating composition
- 7 6,451,870 T Dual curing silicone compositions
- 8 6,447,952 T Polymer electrolytes
- 9 6,413,354 T Oil resistant silicones
- 10 6,406,792 T Biocompatible coatings
- 11 6,387,487 T Dual cure, low-solvent silicone pressure sensitive adhesives
- 12 <u>6,387,451</u> T <u>Curable coating compositions</u>
- 13 6,365,698 T Grafted polysilanes useful as photoinitiators and process for preparing same
- 14 6,341,842 T Surface modified nozzle plate
- 15 6,313,193 T. Antifouling coating composition
- 16 6,301,040 T SPD films having improved properties and light valves comprising same
- 17 6,288,143 T Filler/silicone oil masterbatch with treating agent for RTV polysiloxanes
- 18 6,271,309 **T** Curable compositions comprising the hydrosilation product of olefin-containing polymers and organosiloxane hydrides, cured compositions made therefrom, and methods of making same
- 19 6,225,409 T Fluorosilicone interpenetrating network and methods of preparing same

- 20 6,224,978 Toner fuser roll for high gloss imaging and process for forming same
- 21 6,218,532 T High performance biodegradable materials from oriented starch derivatives
- 22 6,207,101 T Method of making fired bodies
- 23 <u>6,165,620</u> T <u>Method of restoring damaged foul release coating area on a metallic surface, and surface obtained thereby</u>
- 24 6,153,691 Thermoplastic silicone vulcanizates prepared by condensation cure
- 25 6,150,488 T Process for preparing silanol-functional specifically branched organopolysiloxanes and products produced thereby
- 26 6,103,848 Method of rendering substrates water repellent using hyperbranched polymers containing silicon atoms
- 27 6,090,857 T Foam control agent for paints and coatings
- 28 6,040,366 I Liquid injection molding silicone elastomers having primerless adhesion
- 29 6,028,157 T Vinyl-containing silanol-terminated silicone compositions for treatment of fillers
- 30 6,017,996 T Method for the continuous manufacturing of silicone rubber composition
- 31 6,013,740 T Sheet and tube polymers with pendant siloxane groups
- 32 5,998,515 T Liquid injection molding silicone elastomers having primerless adhesion
- 33 <u>5,991,493</u> **T** Optically transmissive bonding material
- 34 5,958,176 I Electrical parts and method for manufacturing the same
- 35 5,916,937 T Heat cured fluorosilicone rubber compositions having improved compression set
- 36 5,912,291 Thermoplastic polymers with polyfluoroalkylsiloxane modified surfaces
- 37 5,891,978 T Room temperature curable compositions
- 38 5,872,194 T Curable liquid-form composition, cured product of the same, and electronic part
- 39 <u>5,824,736</u> T Fluorosilicone rubber composition
- 40 5,811,483 T Water repellent system
- 41 5,808,407 T Use of aluminosilicate sol-gel materials as a phosphor carrier in the fabrication of fluorescent lamps
- 42 <u>5,781,412</u> T <u>Conductive cooling of a heat-generating electronic component using a cured-in-place, thermally-conductive interlayer having a filler of controlled particle size</u>
- 43 5,750,203 T Method of preparing organically modified aluminosilcates sol-gel films
- 44 5,714,524 T Photocurable silicone composition
- 45 5,703,191 Method for purifying polyalkylsiloxanes and the resulting products
- 46 5,695,551 T Water repellent composition
- 47 5,688,888 T Peralkylated phosphazene base-catalyzed silanol condensation method
- 48 5,679,463 T Condensation-cured PDMS filled with zinc oxide and tin oxide mixed fillers for improved fusing member materials
- 49 5,674,935 T Vinyl-containing silanol-terminated silicone compositions for treatment of fillers
- 50 5,663,269 T Organosiloxane fluids prepared using organo-lithium reagents



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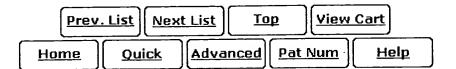
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PAT.

- 51 5,645,752 T Thixotropic magnetorheological materials
- 52 5,612,492 T Formulations and method of use of pressure sensitive paint
- 53 5,612,399 T Processable silicone composite materials having high temperature resistance
- 54 5,608,507 T Direct transfer of liquid toner image from photoconductor drum to image receiver
- 55 5,601,641 Mold release composition with polybutadiene and method of coating a mold core
- 56 5,582,917 T Fluorocarbon-silicone coated articles useful as toner fusing members
- 57 5,569,750 TRTV silicone compositions using aminohydrocarbyl-substituted ketoximinosilanes
- 58 5,563,202 Tin oxide filled dimethylsiloxane-fluoroalkylsiloxane fuser roll for fixing toner to a substrate
- 59 5,561,188 Trialkyl endcapped polyorganosiloxane emulsions
- 60 5,552,466 T Processable silicone composite materials having high temperature resistance
- 61 5,548,021 Trialkyl endcapped polyorganosiloxane emulsions
- 62 5,545,704 T Method for producing alkoxysilalkylene terminated siloxane polymers
- 63 5,543,443 T Denture stabilizing compositions
- 64 5,532,608 T Ceramic probe card and method for reducing leakage current
- 65 5,531,929 T Silicone antifoam compositions
- 66 5,525,643 Thermally insulative, microporous xerogels and aerogels
- 67 5,516,812 T UV-moisture dual cure silicone conformal coating compositions with improved surface tack

- 68 5,514,765 T Room temperature-curing silicone elastomer composition
- 69 5,514,749 T Shelf-stable one-part room temperature vulcanizing fluorosilicone compositions
- 70 5,502,107 T Polystyrene modified with a telechelic polyorganosiloxane
- 71 5,498,642 T Radiation surface-curable, room temperature vulcanizing silicone compositions
- 72 5,480,919 T Functional polyorganosiloxane emulsions from monohydrolyzable silanes and photo curable compositions therefrom
- 73 5,480,724 T Fuser roll for fixing toner to a substrate comprising tin oxide fillers
- 74 5,474,852 T Tin oxide filled diphenylsiloxane-dimethylsiloxane fuser member for fixing toner to a substrate
- 75 5,468,830 T Process for preparing organopolysiloxane gum
- 76 5,466,533 T Zinc oxide filled diphenylsiloxane-dimethylsiloxane fuser member for fixing toner to a substrate
- 77 <u>5,464,703</u> Tin oxide filled dimethylsiloxane-fluoroalkylsiloxane fuser roll for fixing toner to a substrate
- 78 5,449,716 T Functional polyorganosiloxane emulsions from dihydrolyzable silanes and photocurable compositions therefrom
- 79 5,442,027 T Moisture curable organosiloxane compositions exhibiting extended workability
- 80 5,409,978 [T] Method for the continuous preparation of heat-vulcanizing silicone rubber compounds
- 81 5,380,555 T Methods for the formation of a silicon oxide film
- 82 5,370,936 T Organopolysiloxane composition for the formation of cured release films
- 83 5,357,016 T Preparation and processing of polydiorganosiloxanes
- 84 5,356,719 T Fluorosilicone release agent composition
- 85 5,354,833 T Shelf-stable one-part room temperature vulcanizing fluorosilicone compositions
- 86 5,346,940 T Two-part fast curing RTV silicone for formed-on-part automotive gasket
- 87 5,340,866 T Heat stable fluorosilicone rubber compositions
- 88 5,336,539 T Fuser roll containing nickel oxide particles for fixing toner to a substrate
- 89 5,310,845 T Method of preparing curable siloxane polymers containing integral UV absorbers
- 90 5,302,632 T High consistency organosiloxane compositions comprising fluorinated and non-fluorinated polyorganosiloxanes
- 91 5,300,612 T Modulus controllable room-temperature-curable silicone elastomer composition
- 92 5,300,608 T Process for preparing alkoxy-terminated organosiloxane fluids using organo-lithium reagents
- 93 5,298,556 T Mold release composition and method coating a mold core
- 94 5,292,606 T Fuser roll for fixing toner to a substrate
- 95 5,292,562 T Fuser roll for fixing toner to a substrate
- 96 5,290,851 T Room temperature-curable organopolysiloxane composition
- 97 5,276,123 T Alkoxy endblocked polydiorganosiloxane and room temperature vulcanizable silicone elastomers made therefrom
- 98 5,269,740 T Fuser roll for fixing toner to a substrate
- 99 <u>5,266,670</u> T <u>Selective monohydrosilation of vinyl and ethynyl functional norbornenes and curable products produced thereby</u>
- 100 5,265,734 T Silicon-derived solvent stable membranes



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PAT.

- 101 5,254,623 T Curable fluorinated organosiloxane compositions exhibiting improved adhesion
- 102 5,234,880 I Polyolefin catalysts and method of preparing an olefin polymer
- 103 5,227,449 T Photoconductive imaging members with polycarbonate binders
- 104 5,227,111 T Manufacture of moisture curable organosiloxane compositions
- 105 5,227,093 T Curable organosiloxane compositions yielding electrically conductive materials
- 106 5,213,899 T Room temperature vulcanizable silicone compositions
- 107 5,205,934 T Silicone-derived solvent stable membranes
- 108 5,175,057 Adhesion promoters for room temperature vulcanizable silicone compositions
- 109 5,166,296 IT Shelf-stable RTV silicone compositions
- 110 <u>5,162,407</u> T <u>Silicone rubber sealant composition</u>
- 111 <u>5,162,397</u> **T** <u>Silicone foams</u>
- 112 5,145,932 II Organopolysiloxane composition for the formation of a release film
- 113 5,135,995 T Polyolefin catalysts and method of preparing an olefin polymer
- 114 <u>5,126,400</u> T <u>Reinforced polyorganosiloxane elastomers</u>
- 115 5,109,094 T Process for the production of organosilicon compounds
- 116 5,109,093 T Process for producing organosilicon products
- 117 <u>5,102,551</u> T <u>Membrane process for treating a mixture containing dewaxed oil and dewaxing solvent</u>
- 118 5,102,526 T Solid state ion sensor with silicon membrane

- 119 5,093,389 T Room temperature-curable composition
- 120 5,093,002 T Membrane process for treating a mixture containing dewaxed oil and dewaxing solvent
- 121 5,079,291 T Polar aprotic catalysts for formation of fluorosilicone fluids
- 122 5,077,421 T Process for preparing aminofunctional silicone acid
- 123 5,071,811 T Polyolefin catalysts and method of preparing an olefin polymer
- 124 5,070,158 T Covalently labeled siloxane polymers
- 125 5,064,916 T Organopolysiloxane composition for the formation of a cured release film
- 126 5,039,761 T Methacryl function dimethylpolysiloxanes and graft copolymers thereof
- 127 5,037,910 T Polyolefin catalysts and method of preparing an olefin polymer
- 128 5,034,455 T Curable silicone caulk compositions
- 129 <u>5,032,660</u> **T** <u>Curable compositions</u>
- 130 5,011,869 T Self-leveling silicone sealant compositions and methods for making same
- 131 4,999,406 T Reactive polyvinyl chloride and polymer products made therefrom
- 132 4,978,696 T Optically clear organosiloxane adhesive compositions
- 133 4,971,831 T Novel radiation-curable organopolysiloxane compound and coating method
- 134 4,959,407 T RTV silicones having bis(ureido)silane chain extenders and aminoxy siloxane crosslinkers
- 135 4,929,664 T Crosslinkable silicone polymers with talc reinforcing agents having improved non-sag and modulus properties
- 136 4,925,895 T Heat stabilized silicone elastomers
- 137 4,888,382 I Shelf stable silicone caulking materials
- 138 4,888,217 **I** Silicone foam masses
- 139 4,877,828 II Self-bonding silicone caulking compositions
- 140 4,871,801 T Reactive polyvinyl chloride and polymer products made therefrom
- 141 4,863,992 T Polyalkoxysilyl-terminated polydiorganosiloxanes, methods for their preparation, and room temperature vulcanizable compositions containing them
- 142 4,814,368 T Shelf stable curable silicone caulking compositions
- 143 4,797,448 T Additive for arylene sulfide polymers of improved impact strength
- 144 4,780,754 T Polysiloxane modified cement
- 145 4,777,087 T Heat stabilized silicone elastomers
- 146 4,765,729 **T** Anti-reflection optical article
- 147 4,755,578 T Alkoxy-functional one-component RTV silicone rubber compositions
- 148 4,743,639 T Arylene sulfide polymers of improved impact strength
- 149 4,735,979 T Auto-adhering one-component RTV silicone sealant composition utilizing an adhesion promoter
- 150 4,731,411 T Process for producing alkoxy-terminated polysiloxanes



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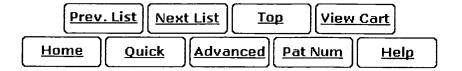
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PAT.

- 151 4,719,275 T Heat stable fluorinated polyorganosiloxane compositions
- 152 4,708,983 T Arylene sulfide polymers of improved impact strength
- 153 4,699,802 T Dual curing coating method for substrates with shadow areas
- 154 4,683,277 T Method for preparing vinyl terminated fluorine-containing polydiorganosiloxane
- 155 4,670,532 T Alkoxy-functional one-component RTV silicone rubber compositions
- 156 4,667,007 To Room temperature vulcanizable organopolysiloxane compositions and method for making
- 157 4,658,006 T Method for the preparation of alkoxy-containing organopolysiloxane
- 158 4,633,002 T Aminofunctional polysiloxane compounds and method of preparation therefor
- 159 4,626,583 T Polysilane-siloxane oligomers and copolymers and methods of making the same
- 160 4,604,442 T Organopolysiloxane-polyamide block polymers and method for making
- 161 4,602,078 I Silicone elastomers and adhesion promoter therefor
- 162 4,600,673 T Silicone release coatings for efficient toner transfer
- 163 4,585,670 T UV curable silicone block copolymers
- 164 4,554,338 T Room temperature vulcanizable organopolysiloxane compositions and method for making
- 165 4,554,310 T Room temperature vulcanizable organopolysiloxane compositions and method for making
- 166 4,539,367 T Low modulus one-component RTV compositions and processes

- 167 4,536,540 T Scavengers for ammonia in RTV compositions
- 168 4,528,353 T Adhesion promoters for one-component RTV silicone compositions
- 169 4,528,352 T RTV silicon compositions and processes
- 170 4,528,081 T <u>Dual curing silicone</u>, method of preparing same and dielectric soft-gel compositions thereof
- 171 4,523,001 T Scavengers for one component alkoxy-functional RTV compositions
- 172 4,517,352 T One package, stable, moisture curable, polyalkoxy-terminated organopolysiloxane compositions and method for making
- 173 4,517,337 T Room temperature vulcanizable organopolysiloxane compositions and method for making
- 174 4,515,932 T End-capping catalysts for forming alkoxy-functional one component RTV compositions
- 175 4,513,115 T Low modulus one component RTV compositions processes
- 176 4,503,209 T Acetamide scavengers for RTV silicone rubber compositions
- 177 4,499,234 II Non-corrosive silicone RTV compositions
- 178 <u>4,499,230</u> The <u>One package, stable, moisture curable, alkoxy-terminated organopolysiloxane compositions containing a zeolite</u>
- 179 <u>4,499,229</u> T <u>One package, stable, moisture curable, alkoxy-terminated organopolysiloxane compositions</u>
- 180 4,496,696 T Silicone sealant composition
- 181 4,495,331 T Scavengers for RTV silicone rubber compositions
- 182 4,495,330 T Crosslinkers for RTV compositions
- 183 4,489,199 T Room temperature vulcanizable organopolysiloxane compositions
- 184 4,489,191 T Silane scavengers for hydroxy radicals containing silicon-hydrogen bonds
- 185 <u>4,483,972</u> T Integrated cross-linkers and amine functional siloxane scavengers for RTV silicone rubber compositions
- 186 4,477,625 (I) One package, stable, moisture curable, alkoxy-terminated organopolysiloxane compositions
- 187 4,472,565 T Silicone-polyimide copolymers, condensation vulcanizable compositions obtained therefrom, and methods for making
- 188 4,472,564 T Method for making an enoxy stabilized room temperature vulcanizable organopolysiloxane composition which resists color change upon aging
- 189 4,472,551 T One package, stable, moisture curable, alkoxy-terminated organopolysiloxane compositions
- 190 4,467,063 © One package, stable, moisture curable, alkoxy-terminated organopolysiloxane compositions
- 191 4,461,867 T Composition for promoting adhesion of curable silicones to substrates
- 192 4,460,739 T Composition for promoting adhesion of curable silicones to substrates
- 193 <u>4,448,814</u> T Method of forming film
- 194 4,448,810 T Treating textile fibres with quaternary salt polydiorganosiloxane
- 195 4,433,127 T Room temperature curable silicone compositions
- 196 4,417,066 T Siloxane quaternary ammonium salt preparation
- 197 4,417,042 T Scavengers for one-component alkoxy-functional RTV compositions and processes
- 198 4,410,677 T Low modulus room temperature vulcanizable silicone rubber compositions

199 4,395,443 T Method of forming silicone films 200 <u>4,376,149</u> T <u>Silicone polymer compositions</u>



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PAT.

- 201 <u>4,374,212</u> **T** Sheet handling device
- 202 4,371,682 T Room temperature curable polyorganosiloxane composition and method
- 203 <u>4,357,443</u> T One package, moisture curable, organopolysiloxane compositions and method for making
- 204 4,273,698 I Self-bonding room temperature vulcanizable silicone rubber compositions
- 205 4,261,758 T Room temperature vulcanizable silicone rubber compositions with sag-control
- 206 <u>4,250,290</u> T Process for the continuous manufacture of siloxane polymers
- 207 4,220,748 II Room temperature curable polysiloxane composition
- 208 4,216,140 I Room temperature vulcanizable polyorganosiloxane composition
- 209 4,208,492 High molecular weight carborane-siloxane block copolymers and method for their preparation
- 210 <u>4,177,176</u> **T** <u>Treatment of fibres</u>
- 211 4,176,093 T Neutron absorbing room temperature vulcanizable silicone rubber compositions
- 212 4,175,159 T Silicone emulsions for treating silicate particulate matter
- 213 4,131,589 T Low temperature transmission room temperature vulcanizable silicone compositions
- 214 4,131,588 T Low vapor transmission rate silicone composition
- 215 4,102,941 T Method for making silarylenesiloxane-polydiorganosiloxane block polymers
- 216 4,098,701 T Process for treating fibres
- 217 <u>4,098,572</u> T <u>Curable polysiloxane aqueous emulsion with Na or Mg sulfate, and treating of keratinous fibres</u>
- 218 3,965,134 T Process for making silarylenesilanediol

219 3,959,403 T Process for making silarylenesilanediol, silarylenesiloxanediol and silarylenesiloxanepolydiorganosiloxane block copolymers

220 3,935,348 T Method of bonding silicone rubber to a primed surface

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cut, fr. OF, fr. coup blow, fr. LL colpus, alter. of L colaphus, fr. Gk kolaphus buffet] vi (14c) 1 obs: STRIKE FIGHT 2 a: to maintain a contest or combat usu. on even terms or with success—used with with contest or compat usu, on even terms or with success—used with with b: to deal with and attempt to overcome problems and difficulties—often used with with 3 archaic: MEET. ENCOUNTER ~ vt 1 obs: to meet in combat 2 obs: to come in contact with 3 obs: MATCH 4cope vt coped; cop-ing [prob. fr. F couper to cut] (ca. 1901) 1: to shape (a structural member) to fit a coping or conform to the shape of another member 2: NOTCH connects was of respectively.

another memoer 2: NOTCH

co-peck var of KOPECK

co-pec, var of kopec, var

coper va

esp: a dishonest one Co-per-ni-can \ko-\por-ni-kon, k\vec{o}\) adj [Nicolaus Copernicus] (1667) 1: of or relating to Copernicus or the belief that the earth rotates daily on its axis and the planets revolve in orbits around the sun 2: of radical or major importance or degree (effected a \sim revolution in philosophy—Times Lit. Supp.)—Copernican n—Co-per-ni-can-ism losophy — Times Lit. Supp.) — Copernican n — Co-per-ni-can-ism \-k-ni-zom\n cope-stone \kōp.ston\ n (1567) 1: a stone forming a coping 2: a

copi-er \kä-pē-or\ n (1597) : one that copies; specif: a machine for making copies of graphic matter (as printing, drawings, or pictures) co-pi-lot \kö-pi-lot\ n (1927): a qualified pilot who assists or relieves the pilot but is not in command cop-ing \kö-pin\ n (1601): the covering course of a wall usu. with a delariest to

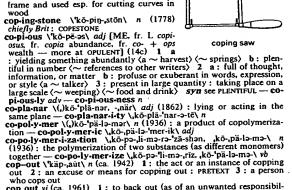
sloping top

sloping top cop-ing saw \kö-piŋ-\ n [fr. prp. of \chicope] (1925): a handsaw with a very narrow blade held under tension in a U-shaped frame and used esp. for cutting curves in

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Ch. ٠.



who cops out cop out vi (ca. 1961) 1: to back out (as of an unwanted responsibility) (cop out on jury duty) 2: to avoid or neglect problems, responsibilities, or commitments (accused the mayor of copping out on the issue

of homelessness)
cop-per \\ka-par\\ n. often attrib [ME coper, fr. OE, fr. LL cuprum copper, fr. L (eas) Cyprium, lit., Cyprian metal] (bef. 12c) 1: a common reddish metallic element that is ductile and malleable and is one of the best conductors of heat and electricity — see ELEMENT table 2: a coin or token made of copper or bronze 3 chiefly Brit: a large boiler (as for cooking) 4: any of a subfamily (Lycaeninae of the family Lycaenidae) of small butterflies with usu. copper-colored wings \\
copper v cop-pered; cop-pering \\ka-p(-s)-rin\\ (1530): to coat or sheathe with or as if with copper \\
cop-per-as \\\ka-p(-s)-ras\\ n [ME coperas, fr. OF couperose, fr. ML cuprosa, prob. fr. aqua cuprosa, lit., copper water, fr. LL cuprum] (14c): a green hydrated ferrous sulfate FeSO₄-7H₂O used esp., in making inks and pigments

a green hydrated ferrous sulfate FeSO₄·7H₂O used esp., in making inks and pigments cop-per-head \kā-pər-,hed\ n (1775) 1: a common pit viper (Agkistrodon contortrix) of the eastern and central U.S. usu. having a copper-colored head and often a reddish brown hourglass pattern on the body 2: a person in the northern states who sympathized with the South during the Civil War cop-per-plate \kā-pər-,plāt\ n (1663) 1: an engraved or etched copper printing plate; also: a print made from such a plate 2: a neat script handwriting based on engraved models copper pyrites n (1776): CHALCOPYRITE cop-per-smith \kā-pər-,smith\ n (14c): a worker in copper copper sulfate n (ca. 1893): a sulfate of copper; esp: the normal sulfate that is white in the anhydrous form but blue in the crystalline hydrous form CuSO₄·5H₂O and that is often used as an algicide and fungicide

cop-pery \'kä-p(>-)rē\ adj (ca. 1775) : resembling or suggesting cop-per; esp : having the reddish to brownish orange color of copper (~ leaves)

leaves)

'cop-pice 'kā-pəs\ n [MF copeiz, fr. couper to cut — more at COPE]

(1534) 1: a thicket, grove, or growth of small trees 2: forest originating mainly from shoots or root suckers rather than seed

'coppice vb cop-piced; cop-pic-ing vt (1538): to cut back so as to regrow in the form of a coppice vi: to form a coppice; specif, of a tree: to sprout freely from the base copr- or copro- comb form [NL, fr. 6k kopr., kopro-, fr. kopros akin to Skt śakrt dung]: dung: feces (coprolite)

co-pra 'kō-pra also 'kā-\ n [Pg. fr. Malayalam koppara] (1584): dried coconut meat yielding coconut toil

co-pro-ces-sor \(,)kō-'prä-se-sər, -'prō-\ n (1980): an extra processor in a computer that is designed to perform specialized tasks (as mathematical calculations)

matical calculations)

co-prod-uct \(.)kō-'prā-(.)dokt\ n (1942): BY-PRODUCT l
cop-ro-lite \'kā-pra-Jit\ n (1829): fossil excrement — cop-ro-lit-it
\\kā-pra-'li-tik\ adj
co-proph-a-gous \(\ka\)-'prā-fa-gas\ adj [Gk koprophagos, fr. kopr. +
-phagos -phagous] (1826): feeding on dung — co-proph-a-gy \(\frac{1}{2}\)-jā

n cop-ro-phil-ia \kä-pr--fi-lē-ə\ n [NL] (1923): marked interest ir excrement; esp: the use of feces or filth for sexual excitement — cop-ro-phil-i-ac \-lē-,ak\ n cop-rophi-i-lous \kə-'prā-fə-ləs\ adj (ca. 1900): growing or living or diverse fines!

-tor-u-la-tive \kä-pyo-lo-tiv, -lā-\ adj (14c) 1 a: joining togethe coordinate words or word groups and expressing addition of the meanings (a ~ conjunction) b: functioning as a copula 2: relating

meanings (a ~ conjunction) b: functioning as a copula 2: relating to or serving for copulation acopulative n (1530): a copulative word copy \kappa n. pl cop-les [ME copie, fr. MF, fr. ML copie, fr. abundance — more at copious] (14c) 1: an imitation, transcript, c reproduction of an original work (as a letter, a painting, a table, or dress) 2: one of a series of esp. mechanical reproductions of an original more signal impression; also: an individual example of such a reproduction archaic: something to be imitated: MODEL 4 a: matter to be sep. for printing b: something considered printable or newsworth—used without an article (remarks that make good ~ Norma Cousins) c: text esp. of an advertisement syn see REPRODUCTION \(\) copy w cop-led; copy-ing y (14c) 1: to make a copy of 2: model oneself on ~ vi 1: to make a copy 2: to undergo copying (the document did not ~ well) \(\) syn COPY; IMITATE, MIMIC, APE, MOCK mean to make something so the

model oneselt on ~ vi 1: to make a copy 2: to undergo copyie (the document did not ~ well)

syn copy: Imitate Mimic, APE, Mock mean to make something so the it resembles an existing thing. Copy suggests duplicating an original: nearly as possible (copied the painting and sold the fake as an original). Imitate suggests following a model or a pattern but may allo for some variation (imitate a poet's style). MIMIC implies a close coping (as of voice or mannerism) often for fun, ridicule, or lifelike imit tion (pupils mimicking their teacher). APE may suggest presumptuot slavish, or inept imitating of a superior original (American fashing designers aped their European colleagues). MOCK usu, implies imit tion with derision (mocking a vain man's pompous manner). copy-book \kappa,buk\n n (1588): a book formerly used in teachipenmanship and containing models for imitation copy-boy\,boi\n\n (1888): one who carries copy and runs errands 'copy-cat\,kat\n. often attrib (1896) 1: one who imitates or adoft the behavior or practices of another 2: an imitative act or prodice to py-desk \-desk\n n (1921): the desk at which newspaper copy edited cony editor n (1899): an editor who prepares copy for the printer; or the printer; o

copy editor n (1899): an editor who prepares copy for the printer; copy editor n (1899): an editor who prepares copy — copy-ed-it \%ä-

copy-hold \kä-pē-,hōld\ n (15c) 1: a former tenure of land in l gland and Ireland by right of being recorded in the court of the ma: 2: an estate held by copyhold copy-hold-er_hōl-dar\ n (1874) 1: a device for holding copy of or a proofreader copy-ist \kä-pē-ist\ n (1699) 1: one who makes copies 2: IMITA copy-read-er_rē-dar\ n (1882): copy Eddror — copy-read\ rpēd l copy-regat _ric (1735): the exclusive legal right to reprodict publish, and sell the matter and form (as of a literary, musical, or a tic work) — copyright adj\
copy-right _ric (1806): to secure a copyright on — copy-right-s_ric 1-bal\ adj\
copy-write-r \kä-pē-,ric-tar\ n (1911): a writer of advertising or l licity copy

copy writer (ka-pe-netal (n (1911) a which of adversarial licity copy coq au vin \kök-ö-'van, käk-ö-\ n [F, cock with wine] (ca. 1' : chicken cooked in usu. red wine 'co-quet n [F, dim. of coq cock] (1691) 1 \kö-'ket, -'kā\ : a man indulges in coquetry 2 \-'ket\ : COQUETTE 'co-quet \kö-'ket\ adj (1697) : characteristic of a coquette : COQL

tsh

*co-quet or co-quette \-'ket\ vi co-quet-ted; co-quet-ting (1701 to play the coquette: FLIRT 2: to deal with something play rather than seriously syn see TRIFLE co-que-try \-'ko-k->trē, ko-'ke-trē\ n, pl -tries (ca. 1656): a flirts act or attitude

co-quette \kō-ket\ n [F, ferm. of coquet] (ca. 1611): a woman endeavors without sincere affection to gain the attention and adition of men — co-quett-ish\-ke-tish\ adj — co-quett-ish-less n \ see the dim of coquety and the second of the coquett-ish-less n \ see the dim of coquety and alter of coc.

co-quiett-issn-iess n co-qui-ina kho-ke-na\ n [Sp. prob. dim. of coca head, alter of coc geyman, coconul] (1837) 1: a soft whitish limestone formed of ken shells and corals cemented together and used for building small clam (Donax variabilis) used for broth or chowder and occul in the intertidal zone of sandy Atlantic beaches from Delaware (
Gulf of Mexico



terbentina) + -ene — more at TURPENTINE] (1873): any of various isomeric hydrocarbons $C_{10}H_{16}$ found present in essential oils (as from conifers) and used esp. as solvents and in organic synthesis; broadly: any of numerous hydrocarbons $(C_3H_{10})_n$ found esp. in essential oils, resins, and balsams — ter-pene-less \-las\ adj — ter-pe-noid \'tar-

: any or numerous nyarocarbons (C₃n₃n₁ numbres): in essential onstressins, and balsams — ter-peneless \-les\ adj — ter-penoid \-tor-penoid\ \tar-pe-\,noid\, \tar-pe-\ adj or n ter-pine-col\ \\tar-pi-ne-\ol\,\tar-pi-n

vents
ter-poly-mer \tar-'pä-la-mar\ n (1947): a polymer (as a complex
resin) that results from copolymerization of three discrete monomers
Terp-sich-o-re \tar-'ps' kb-(\ne\)re\ n [L. fr. Gk Terpsichore]: the Greek
Muse of dancing and choral song
terp-si-cho-re-an \tar-(\ne\)si-kb-'re-an; -sa-'kor-\epsilon-, -kor-\ adj (1825)
: of or relating to dancing
ter-ra \ 'ter-\)n p ter-rae \ '\-\ne\ -\ne\. n\ [NL. fr. L. land] (1946): any of
the relatively light-colored highland areas on the surface of the moon
or a planet

the relatively light-colored highland areas on the surface of the moon or a planet

Iter-race \'ter-as\\\\\ n [MF. pile of earth, platform, terrace, fr. OProverross, fr. terra earth, fr. L. earth, land; akin to L. torrère to parch—more at THIRST] (1515) 1 a: a colonnaded porch or promenade b: a flat roof or open platform c: a relatively level paved or planted area adjoining a building 2 a: a raised embankment with the top leveled b: one of usu, a series of horizontal ridges made in a hillside to increase cultivatable land, conserve moisture, or minimize erosion 3: a level ordinarily narrow plain usu, with steep front bordering a river, lake, or sea; also: a similar undersea feature 4 a: a row of houses or apartments on raised ground or a sloping site b: a group of row houses c: a strip of park in the middle of a street often planted with trees or shrubs d: STREET 5: a section of a British soccer stadium set aside for standing spectators

Iterrace w ter-raced; ter-rac-ing (1615) 1: to provide (as a building or hillside) with a terrace 2: to make into a terrace

ter-ra—cot-ta \,\ter-a-\kai-ta-\), n. often attrib [It. terra cotta, lit., baked earth] (1722) 1: a glazed or unglazed fired clay used esp. for statuettes and vases and architectural purposes (as roofing, facing, and relief ornamentation) 2: a brownish orange

terra firma \,\frac{1}{15} = \text{man} \, des \,

land: solid ground
ter-rain \ta-'ran also \table int-\ n [F, land, ground, fr. (assumed) VL terrain \ta-'ran also \ta-\ n [F, land, ground, fr. (assumed) VL terrainm, alter: of L terrenum, fr. neut. of terrenus of earth — more at
TERRENE] (1766) 1 a (1): a geographical area (2): a piece of land
: GROUND b: the physical features of a tract of land 2: TERRANE 1
3 a: a field of knowledge or interest: TERRITORY b: ENVIRONMENT,

MILIEU
ter-ra in-cog-ni-ta \'ter-a-,in-,käg-'nē-ta, -in-'käg-na-ta\\ n, pl ter-rae
in-cog-ni-tae \'ter-,i-,in-,käg-'nē-,tī, -in-'käg-na-,tī\\ [L] (1616): unknown territory: an unexplored country or field of knowledge
Ter-ra-my-cin \, ter-a-'mī-s'n\ trademark — used for oxytetracycline
ter-rane \ta-'rān, te-\ n [alter of terrain] (1864) 1: the area or surface
over which a particular rock or group of rocks is prevalent 2: TERPANNIE

over which a particular rock or group of RAIN 1a ter-ra-pin \ter-p-pn, 'tar-\ n [of Algonquian origin; akin to Delaware (dial. of New York) to lpew, a kind of turtle; (1613): any of various aquatic turtles (family Emydidae); esp: DIAMONDBACK TERRAPIN

TERRAPIN States, p. blankondaket

terr-aque-ous \te-'rā-kwē-əs, tə-, -'ra-\
adj [L terra land + E aqueous] (ca. 1658)
: consisting of land and water
terr-ari-um \ts-'ra-ē-əm, -'rer-\ n. pl -ia
\-\c-\c-\c\ or -i-i-ims [NL, fr. L terra + -arium
(as in vivarium)] (1890): a usu. transparent enclosure for keeping or
raising plants or usu. small animals (as turtles) indoors
ter-raz-zo \\ts-'ra-(\)\rac{r}\c\cap{-'r\ata-(\)\rac{r}\cap{-'\ca

ter-re-plein \ ter-2-plain \ n [MF, fr. Ott terrapieno, fr. ML terrapienoun, fr. terra plenum, fir. terra plenum, fir. terra plenum, fir. terra plenum, fir. terra plenus filled with earth] (1591): the level space behind a parapet of a rampart where guns are mounted ter-re-strial \table \table ter-re-strial \table \table ter-re-strial \table \table ter-re-strial \table \table \table ter-re-strial \table \table \table terrapienous \table \table terrapienous \table \table \table terrapienous \table \tabl

ter-ric-o-lous \te-'ri-kə-ləs, tə-\ adj [L terricola earth dweller, fr. terra earth + colere to inhabit — more at WHEEL] (ca. 1836): living on or in

earth + colere to inhabit — more at wheel] (ca. 1836): Itving on or in the ground ter-ri-er \'ter-\vec{e}-\vec{or}\ n [ME, fr. MF (chien) terrier, lit., earth dog, fr. terrier of earth, fr. ML terrarius, fr. L terra] (15c): any of various usus small dogs orig. used by hunters to dig for small furred game and engage the quarry underground or drive it out ter-rif-ic \text{te}-'ri-fik\ adj [L terrificus, fr. terr\vec{e}re to frighten] (1667) 1 a: very bad: FRIGHTFUL b: exciting or fit to excite fear or awe 2

: EXTRAORDINARY (~ speed) 3: unusually fine: MAGNIFICENT (~ weather)—ter-rif-i-cal-ly \-fi-k(-)-l\tilde\) adv
ter-ri-fy \ter-\tilde\) v-fied; -fy-ing [L terrificare, fr. terrificus] (1575)
1 a io drive or impel by menacing: SCARE b: DETER INTIMIDATE 2 to fill with terror

: to fill with terror ter-ri-fy-ing \, fi-in\ adj (ca. 1586) 1: causing terror or apprehension 2: of a formidable nature — ter-ri-fy-ing-ly \-in-le\ adv ter-rige-nous \te-'ri-j-ons, t-\ adj [L terrigena earthborn, fr. terra earth + gignere to beget — more at Kin] (1882): being or relating to oceanic sediment derived directly from the destruction of rocks on the earth's surface

ter-rine \ta-'rēn, ter-'rēn\ n [F — more at TUREEN] (ca. 1706) 1 a : TUREEN 1 b : a usu. earthenware dish in which foods are cooked and served 2: a mixture of chopped meat, fish, or vegetables cooked and served in a terrine

served 1: a mixture of chopped meat, iish, or vegetables cooked and served in a terrine

*ter-ri-to-ri-al_\ter-\tilde{\ter}-\tilde{\ter

diction of a nation or state including both marginal sea and inland waters
territory \text{\text{'ter-2-, tor-\text{\text{\territorium}}}, lit., land around a town, fr. terra land — more at TerracCE] (15c) 1 a: a geographical area belonging to or under the jurisdiction of a governmental authority b: an administrative subdivision of a country c: a part of the U.S. not included within any state but organized with a separate legislature d: a geographical area (as a colonial possession) dependent on an external government but having some degree of autonomy 2 a: an indeterminate geographical area b: a field of knowledge or interest 3 a: an assigned area; esp: one in which a sales representative or distributor operates b: an area often including a nesting or denning site and a variable foraging range that is occupied and defended by an animal or group of animals — go with the territory or come with the territory: to be a natural or unavoidable aspect or accompaniment of a particular situation, position, or field (criticism goes with the territory in this job) terror \text{\terror} \text{\territory} in \text{\territory} in this job)
terror \text{\territory} \text{\territory} in this job)
terror \text{\territory} in \text{\territory} in this job)

1 a state of intense fear 2 a: one that inspires fear: SCOURGE b: a frightening aspect (the \times of invasion) c: a cause of anxiety: worky d: an appalling person or thing; esp: BRAT 3: REIGN OF TERROR 4: violence (as bombing) committed by groups in order to intimidate a population or government into granting their demands (insurrection and revolutionary \times syn see FEAR — terror-less \-less \-

ter-ror-ise chiefly Brit var of TERRORIZE
ter-ror-ism \'ter-pr-i-zem\ n (1795): the systematic use of terror esp.
as a means of coercion — ter-ror-ist \-pr-ist\ adj or n — ter-ror-is-tic

ter-or-122 \ter-or-12 \ter-or-12

\a\ abut \a\ kitten. F table \ar\ further \a\ ash \a\ ace \a\ mop. mar \au\ out \ch\ chin \e\ bet \e\ easy \g\ go \i\ hit \i\ ice \j\ job \n\ sing \o\ go \o\ law \oi\ boy \th\ thin \th\ the \\\u\ loot \\\u\ foot \y\ yet \zh\ vision \a, k, ", ce, ce, ue, ue, ve, y\ see Guide to Pronunciation